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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,291	04/25/2001	Keith Joseph Allen	7780/12 (T00340)	7814

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EXAMINER

KIM, JUNG W

ART UNIT PAPER NUMBER

2132

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/843,291	ALLEN ET AL.	
	Examiner	Art Unit	
	Jung Kim	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is in response to the amendment filed on July 31, 2006.
2. Claims 1-29 are pending.

Response to Amendment

3. The objection to claim 21 is withdrawn as the amendment to the claim overcomes the objection.

Response to Arguments

4. Applicant's arguments have been fully considered but they are not persuasive. Applicant's arguments are based on a piecemeal reconstruction of the arguments and one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). For example, applicant argues that "Rigney fails to disclose associating a line identifier with a port assigned to a subscriber wherein the line identifier is usable to authenticate a server" (Remarks, bottom of pg. 9); "that Xu also fails to disclose associating a line identifier with a port associated to a subscriber of DSL service for the purpose of authenticating a service request for DSL service based on the line identifier" (Remarks, top of pg. 10); "Like Xu, Ankney also fails to disclose associating a line identifier with a port assigned to a subscriber of DSL internet service for the purpose of

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authenticating a service request for DSL service based on the line identifier.” (Remarks, 2nd full paragraph) However, the rejections of these limitations and the claims in general are based on a combination of references, whereas applicant’s arguments only highlight what each individual prior art reference does not teach with regard to the limitations in question. This type of argument is not fully responsive to the rejections. A proper rebuttal against the substance of a rejection based on a combination of references must be responsive to at least one of the following three criteria for establishing a 103(a) rejection: proper motivation, reasonable expectation of success and the references must teach or suggest all of the claim limitations. MPEP 2143. Contrary to applicant’s allegation, the 103(a) rejections are fully defined within each criterion. In particular, with regard to the limitation “associating a line identifier with a port assigned to a subscriber of DSL internet service for the purpose of authenticating a service request for DSL internet service based on the line identifier,” Rigney, Xu and Sitaraman combined teach or suggest all the claim limitations:

- a. Rigney discloses assigning a port value to a subscriber of network service for the purpose of authenticating a service request for network service. (RADIUS service);
- b. Xu discloses a method for connecting a client to a computer network by associating a line identifier (telephone numbers of the caller and callee) with an IP address and port number associated with the caller wherein the line identifier is stored in a database, retrieving the identifier from the database in response to a service request, and transferring the line identifier to the service provider;

where the service provider uses the line identifier to authenticate the service request along with a username and password; and

c. Sitaraman discloses prior art access network systems wherein subscribers to an Internet service provider contacts a network access server using a digital subscriber line, wherein the subscriber is authenticated by means of a RADIUS server.

Moreover, proper motivation to combine the references is established in the rejections:

d. the combination of Rigney and Xu is desirous since it securely establishes a unique mapping between a subscriber's line and authentication information associated with the subscriber to link a subscriber's request with an IP address and port value as known to one of ordinary skill in the art and as taught by Xu; and the combination of Rigney and Sitaraman is desirous since it facilitates authorized access using proven authentication methodologies in different types of network access technologies as taught by Sitaraman.

Finally, the expectation of success to modify the references is reasonable. All three references are disclosing network access methods using the RADIUS authentication protocol. An additional authentication step using a line identifier in a DSL network using RADIUS authentication does not appear to be problematic within the context of the art; moreover, applicant has not produced any evidence to suggest that the expectation of success is not reasonable. Hence, the 103(a) rejections are deemed proper, and applicant's arguments are not persuasive.

Claim Rejections - 35 USC § 103

5. Claims 1, 4, 6, 8, 9, 12, 14, 15, 17-19 and 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rigney et al. RFC 2865 "Remote Authentication Dial In User Service (RADIUS)" (hereinafter Rigney) in view of Xu et al. USPN 6,151,628 (hereinafter Xu) and Sitaraman et al. USPN 6,430,619 (hereinafter Sitaraman)
6. As per claim 1, Rigney discloses a method for providing a port value to a service provider (operation steps for RADIUS protocol), comprising:
 - e. receiving a service request from a subscriber, which includes a subscriber identifier, on a port and transferring the subscriber identifier and the port value to the service provider for authentication of the subscriber (sec. 2, 1st paragraph);
 - f. authenticating a service request based on the port value and subscriber identifier at the service provider, wherein the service request is only authenticated when the subscriber sends the service request through the port to which the user is allowed access (sec. 2, 3rd and 4th paragraph).
7. Rigney does not expressly disclose associating a line identifier with the port assigned to a subscriber wherein the line identifier is usable to authenticate a service request. Xu discloses a method for connecting a client to a computer network by associating a line identifier (telephone numbers of the caller and callee) with an IP address and port number associated with the caller wherein the line identifier is stored in a database, retrieving the identifier from the database in response to a service request, and transferring the line identifier to the service provider; where the service

provider uses the line identifier to authenticate the service request along with a username and password (11:20-12:11, esp. 11:32-40; 15:45-17:24, Phase 1 Authentication Interface and Phase 2 Authentication Interface, esp. 15:49-64 and 16:53-67). Hence, it would be obvious to one of ordinary skill in the art at the time the invention was made for the service request to be authenticated based on a line identifier, since it securely establishes a unique mapping between a subscriber's line and authentication information associated with the subscriber to link a subscriber's request with an IP address and port value as known to one of ordinary skill in the art and as taught by Xu, *ibid.*

8. Finally, Rigney does not disclose the service provider to be a DSL Internet service provider, the subscriber to be a subscriber of DSL Internet service, wherein the service request is made via a DSL Internet connection. Sitaraman discloses prior art access network systems wherein subscribers to an Internet service provider contacts a network access server using a digital subscriber line, wherein the subscriber is authenticated by means of a RADIUS server (col. 1:14-42). It would be obvious to one of ordinary skill in the art at the time the invention was made for the authentication steps based on a RADIUS protocol as taught by Rigney and Xu to be incorporated in a DSL access network system as taught by Sitaraman since it facilitates authorized access using proven authentication methodologies in different types of network access technologies. (Sitaraman, *ibid.*: Dial up, DSL or ISDN) The aforementioned cover the limitations of claim 1.

9. As per claims 4 and 8, the rejection of claim 1 under 35 U.S.C. 103(a) is incorporated herein. (supra) In addition, the service request is authenticated by the provider based on the subscriber identifier and the line identifier. (Rigney, sec. 2, 3rd and 4th paragraph; Xu, col. 11:20-12:11, esp. 11:32-40; 15:45-17:24, Phase 1 Authentication Interface and Phase 2 Authentication Interface, esp. 15:49-64 and 16:53-67) The aforementioned cover the limitations of claims 4 and 8.

10. As per claim 6, the rejection of claim 4 under 35 U.S.C. 103(a) is incorporated herein. (supra) In addition, the subscriber identifier and the line identifier are transferred together to the provider (Xu, col. 16:53-63).

11. As per claim 9, it is a claim corresponding to claim 1 and it does not teach or define above the information claimed in claim 1. Therefore, claim 9 is rejected as being unpatentable over Rigney in view of Xu and Sitaraman for the same reasons set forth in the rejection of claim 1.

12. As per claims 12, 14 and 15, the rejection of claim 1 under 35 U.S.C. 103(a) is incorporated herein. (supra) In addition, a remote access server (network access server) associates the line identifier with the port, and stores and retrieves the line identifier for authentication of a service request (Rigney, sec. 1, Introduction; Xu, col. 11:20-12:11, esp. 11:32-40; 15:45-17:24, Phase 1 Authentication Interface and Phase 2 Authentication Interface, esp. 15:49-64 and 16:53-67). In addition, a remote access

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server in the context of the invention taught by the combination of Rigney, Xu and Sitaraman necessarily includes a port, a management interface, a database interface and a network interface for the corresponding steps outlined above. The aforementioned cover the limitations of claims 12, 14 and 15.

13. As per claims 17-19, the rejections of claims 12, 14 and 15 under 35 U.S.C. 103(a) are incorporated herein. (supra) In addition, the subscriber unit is configured to present a user interface for selecting the network service (Xu, fig. 1, reference nos. 12 and 14; col. 4:27-30 and 55-61). The aforementioned cover the limitations of claims 17-19.

14. As per claims 21 and 22, they are claims corresponding to claim 1 and they do not teach or define above the information claimed in claim 1. Therefore, claims 21 and 22 are rejected as being unpatentable over Rigney in view of Xu and Sitaraman for the same reasons set forth in the rejection of claim 1.

15. As per claim 23, the rejection of claim 22 under 35 U.S.C. 103(a) is incorporated herein. (supra) In addition, the subscriber identifier comprises a login Id and a password received from the subscriber (Rigney, sec. 2, 3rd and 4th paragraph; Xu, col. 16:53-57).

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16. As per claim 24, the rejection of claim 21 under 35 U.S.C. 103(a) is incorporated herein. (supra) In addition, the service request for DSL internet service is authenticated based on the retrieved line identifier and a login ID and password received from the subscriber (Rigney, sec. 2, 3rd and 4th paragraph; Xu, col. 15:49-64 and 16:53-67).

17. As per claim 25, it is a claim corresponding to claims 17 and 24, and it does not teach or define above the information claimed in claims 17 and 24. Therefore, claim 25 is rejected as being unpatentable over Rigney in view of Xu and Sitaraman for the same reasons set forth in the rejections of claims 17 and 24.

18. As per claim 26, it is a claim corresponding to claims 12 and 24, and it does not teach or define above the information claimed in claims 12 and 24. Therefore, claim 26 is rejected as being unpatentable over Rigney in view of Xu and Sitaraman for the same reasons set forth in the rejections of claims 12 and 24.

19. As per claim 27, it is a claim corresponding to claims 9 and 24, and it does not teach or define above the information claimed in claims 9 and 24. Therefore, claim 27 is rejected as being unpatentable over Rigney in view of Xu and Sitaraman for the same reasons set forth in the rejections of claims 9 and 24.

20. As per claim 28, it is a claim corresponding to claims 4 and 23, and it does not teach or define above the information claimed in claims 4 and 23. Therefore, claim 28

is rejected as being unpatentable over Rigney in view of Xu and Sitaraman for the same reasons set forth in the rejections of claims 4 and 23.

21. As per claim 29, it is a claim corresponding to claims 1 and 24, and it does not teach or define above the information claimed in claims 1 and 24. Therefore, claim 29 is rejected as being unpatentable over Rigney in view of Xu and Sitaraman for the same reasons set forth in the rejections of claims 1 and 24.

22. Claims 2, 3, 5, 7, 10, 11, 13, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rigney in view of Xu and Sitaraman, and further in view of Ankney et al. USPN 5,113,499 (hereinafter Ankney).

23. As per claims 2 and 3, the rejection of claim 1 under 35 U.S.C. 103(a) is incorporated herein. (supra) Rigney does not expressly disclose authenticating the line identifier after first authenticating the subscriber identifier at the service provider. Ankney teaches an authentication procedure wherein the username and password of an access request is authenticated, and if so, then the address of the request is verified (figs. 2a-2e). By validating the address after validating the username and password, the address validation step is made only if the username and password are verified. It would be obvious to one of ordinary skill in the art at the time the invention was made to authenticate a subscriber identifier at the service provider and query the database in response to the authenticated subscriber identifier to retrieve the line identifier therefrom

to restrict validation based on previous tests for an efficient yet effective means of layered authentication as known to one of ordinary skill in the art. The aforementioned cover the limitations of claims 2 and 3.

24. As per claim 5, it is a claim corresponding to claims 2-4 and it does not teach or define above the information claimed in claims 2-4. Therefore, claim 5 is rejected as being unpatentable over Rigney in view of Xu, Sitaraman and Ankney for the same reasons set forth in the rejections of claims 2-4.

25. As per claim 7, the rejection of claim 5 under 35 U.S.C. 103(a) is incorporated herein. (supra) In addition, the subscriber identifier and the line identifier are transferred separately to the provider (the two identifiers are distinct).

26. As per claims 10 and 11, they are claims corresponding to claims 2 and 3, and they do not teach or define above the information claimed in claims 2 and 3. Therefore, claims 10 and 11 are rejected as being unpatentable over Rigney in view of Xu, Sitaraman and Ankney for the same reasons set forth in the rejections of claims 2 and 3.

27. As per claim 13, it is a claim corresponding to claims 2 and 12, and it does not teach or define above the information claimed in claims 2 and 12. Therefore, claim 13

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is rejected as being unpatentable over Rigney in view of Xu, Sitaraman and Ankney for the same reasons set forth in the rejections of claims 2 and 12.

28. As per claim 16, it is a claim corresponding to claims 7 and 14, and it does not teach or define above the information claimed in claims 7 and 14. Therefore, claim 16 is rejected as being unpatentable over Rigney in view of Xu, Sitaraman and Ankney for the same reasons set forth in the rejections of claims 7 and 14.

29. As per claim 20, it is a claim corresponding to claims 7 and 18, and it does not teach or define above the information claimed in claims 7 and 18. Therefore, claim 20 is rejected as being unpatentable over Rigney in view of Xu, Sitaraman and Ankney for the same reasons set forth in the rejections of claims 7 and 18.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Communications Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jung Kim
September 1, 2006



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